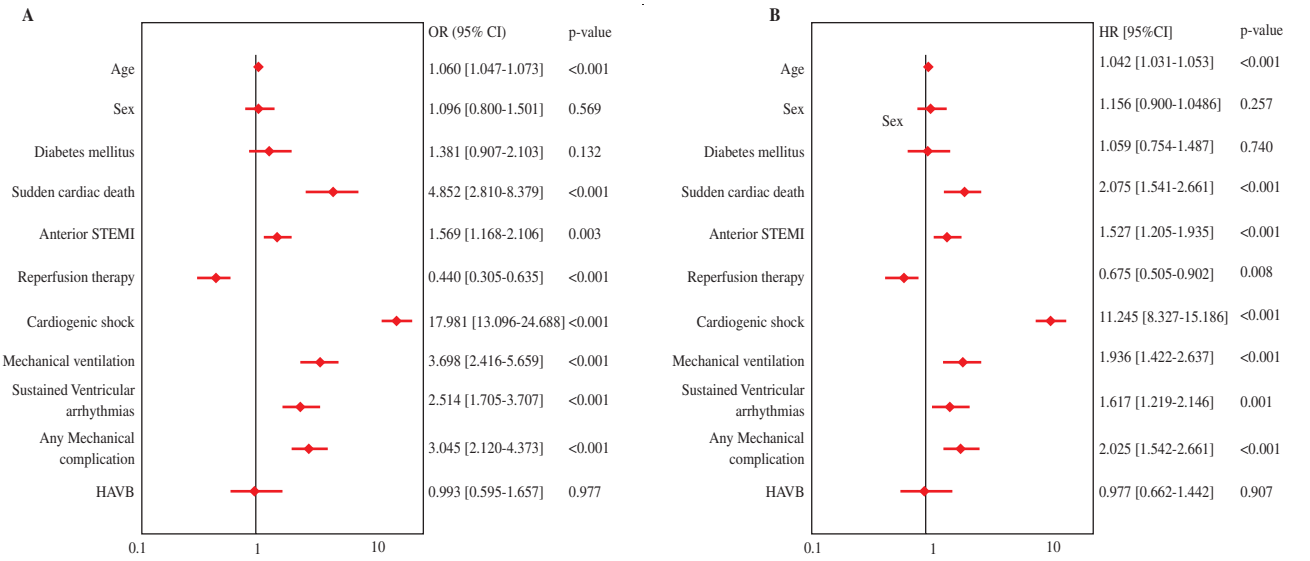

Abstract 0019 – Figure: Multivariable analysis

0302

Rate and predictors of contrast-induced nephrotoxicity after coronary intervention depend on renal function at baseline

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Background Contrast induced nephrotoxicity (CIN) after coronary angiography or angioplasty (CA) has been shown to be related to mortality. The rate and predictors of CIN when preventive measures are applied are poorly documented.

Methods All consecutive patients submitted to non-urgent CA in 2014 with low-osmolar contrast medium were stratified for CIN risk: patients with renal dysfunction (defined as eGFR<60mL/min) had interruption of diuretics and received a 250-500mL intravenous saline infusion before and after CA. Serum Creatinine (SCr) levels were measured before CA and daily thereafter up to 5 days after CA. CIN was defined as an absolute increase of 44 µmol/L SCr or of 25% over baseline SCr level. Predictors of CIN and of recovery were determined by logistic regression. CIN patients had clinical follow-up for death or end-stage renal dysfunction.

Results SCr results were available in 958 patients, 72% male, 25% diabetics, median eGFR was 71mL/min before CA (interquartiles (IQ) =54; 89). Median amount of contrast was 129mL (IQ=90; 186). At 2-4 days, CIN was observed in 188(20%), driven by a 25% increase in SCr (n=185, 19%) whereas 81 (8.5%) had an increase of >44mmol/L in SCr. CIN rate was related to quartiles of eGFR before CA: 20% when eGFR<53, 14% for eGFR between 53 and 88 and 30% for eGFR>87ml/min. The amount of contrast medium was not a predictor of CIN. In patients without renal dysfunction, a lower SCr was a predictor of CIN. Conversely, in patients with renal dysfunction, older age and diabetes were associated with CIN (figure).

Conclusions In contemporary routine practice, CIN occurs in 20%, driven by a relative 25% increase in SCr, and irrespective of the amount of contrast medium. In patients with renal dysfunction, older age and diabetes were associated with CIN.

0113

Factors associated with infarct-related artery patency before primary percutaneous coronary intervention for ST-elevation myocardial infarction: results from the FAST-MI 2010 registry

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Background Early infarct-related artery (IRA) patency is associated with better clinical outcomes in STEMI patients. Using the FAST-MI 2010 ST-elevation myocardial infarction (STEMI) cohort, we investigated factors related to IRA patency (TIMI 2/3 flow) at the start of procedure in patients admitted for primary percutaneous coronary intervention (PCI).

Methods and results FAST-MI 2010 is a nationwide French registry including 4,169 Acute MI patients. Of 1452 STEMI patients with primary PCI, 466 (32%) had TIMI 2/3 flow of IRA before the procedure. Mean age (62±14 years in both groups), GRACE score (141±31 vs 142±34) and time from onset to angiography (472±499 vs 451±479min) did not differ according to IRA patency (TIMI2/3 vs TIMI 0/1). Using multivariate logistic regression analysis, IRA patency was more frequently found in patients having called earlier (<75min, median time from symptom onset: OR: 1.60; 95% CI 1.26-2.04), or receiving antiplatelet therapy (APT) before angiography. Increasing time from diagnostic ECG to angiography was also associated with IRA patency (>90min, OR: 1,38; 95%IC 1.08-1.77). The results were confirmed by propensity score analyses.

Conclusion Pre-procedural IRA patency is observed in one third of STEMI patients; it is more frequently found in patients having received APT prior to angiography, as well as in patients having called early. Higher IRA patency with increasing time delays from qualifying ECG to angiography suggests an additional role of spontaneous or medication-mediated fibrinolysis.

The author declares a conflict of interest: Fees for lectures and/or consulting: Astra-Zeneca, Bayer, Daiichi-Sankyo, Lilly, MSD, The Medicine Company, Servier.